Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Commission Seeks Public Comment	)	ET Docket No. 02-135
On Spectrum Policy Task Force Report	)	

REPLY COMMENTS OF SES AMERICOM, INC.

SES AMERICOM, Inc. ("SES AMERICOM"), by its attorneys, hereby submits its reply to the comments of other parties in the above-referenced proceeding involving the recommendations made by the Commission's Spectrum Policy Task Force ("SPTF" or "Task Force").[1]

SES AMERICOM is a member of the Satellite Industry Association ("SIA") and concurs fully in the initial comments SIA filed in this proceeding.[2] These reply comments focus on three of the issues addressed by SIA. First, SES AMERICOM urges the Commission to reject the Task Force's recommendation that the Commission seek a change in the ORBIT Act prohibition on auctioning of satellite spectrum. Second, we concur with the concerns expressed by SIA and other parties regarding the proposal to employ an "interference temperature" analysis to explore permitting new users in licensed bands. Third, we oppose any increase in permissible power

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[1] *Spectrum Policy Task Force Report*, ET Docket No. 02-135 (Nov. 2002) ("*SPTF Report*").

[2] Comments of the Satellite Industry Association (Jan. 27, 2003).

levels for terrestrial operations in rural areas in bands that are shared with or adjacent to satellite spectrum.

SATELLITE SPECTRUM AUCTIONS

SES AMERICOM has long opposed the auction of spectrum for fixed satellite services. In a recent presentation at the Satellite 2003 conference, Dean Olmstead, President of SES AMERICOM, articulated four significant problems with satellite spectrum auctions.[3]

First, he noted that auctioning of satellite spectrum would create barriers to technological innovation. Under current policies, operators are expected to coordinate in good faith to permit new entrants and new services, and both the operators and the Commission have the flexibility needed to accommodate these changes. In contrast, auctioning requires a rigid definition of the rights being sold, and the winning bidder has no incentive to accept any compromise of its rights. This rigidity would thwart the kind of developments that have characterized the growth of the satellite industry. For example, how could the FCC have implemented two degree orbital spacing if it had auctioned satellite spectrum rights based on three or four degree spacing?

Second, Mr. Olmstead pointed out that auctioning satellite spectrum would distort intermodal competition. If some services must bid for

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[3] Remarks of Dean Olmstead, President, SES AMERICOM, Inc., Satellite 2003 Conference, Feb. 26, 2003.

spectrum while competing services do not, it is impossible to have a level playing field.

Third, Mr. Olmstead stated that spectrum fees divert capital away from infrastructure investment, thereby stifling development. Instead of imposing significant upfront costs on satellite operators, the government should continue to receive a return from satellite spectrum use through the collection of taxes on successful economic activities, including satellite service operations.

Fourth, Mr. Olmstead noted that spectrum auctions inject a significant new market risk into satellite projects that are already extremely high-risk. Satellite construction and deployment require huge upfront investment, with long lead times from the planning stage to the break-even point. Satellite operators can mitigate some of the risks they face today by ensuring against the possibility of launch failure and retaining the flexibility to modify a satellite during construction in response to technological or market changes. An auction fee, however, represents an additional cost that cannot be recovered in the event of market developments that affect the viability of the original business plan.

Other commenters here reinforce SES AMERICOM's objections to satellite spectrum auctions. In fact, the record in response to the Report provides no support for the Task Force's proposal that the Commission seek a revision of the ORBIT Act provision that addresses satellite spectrum

auctions.[4] As SIA observes, the Report does not even discuss the policy rationale that led to Congress's adoption of the prohibition on auctioning global satellite spectrum. SIA Comments at 3. Lockheed Martin's comments demonstrate that at the time the ORBIT Act provision was adopted, Congress was concerned that U.S. spectrum auctions for satellites would lead other countries to follow suit and would negatively affect satellite competition.[5] The Commission agreed, arguing in testimony before Congress that satellite spectrum auctions could distort the marketplace. *Id*. (citing to statement of Peter Cowhey, Chief, FCC International Bureau).

Nothing has changed that would warrant revisiting this conclusion. To the contrary, the commenters here provide overwhelming evidence that the ORBIT Act provision is still needed. SIA supplies a lengthy and detailed explanation of the harmful consequences for satellite operators if the U.S. were to initiate auctioning of satellite spectrum rights and other countries followed suit. SIA Comments at 5-8. PanAmSat states that use of spectrum auctions or imposition of spectrum fees by the U.S. "would trigger similar auctions and fees in other countries, thereby jeopardizing the financial viability of the U.S. satellite industry."[6] Boeing agrees, stating that global auctions would lead to "an exponential increase in the costs faced by

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[4] 47 U.S.C. § 765(f).

[5] Comments of Lockheed Martin Corporation at 11 (Jan. 27, 2003).

[6] Comments of PanAmSat Corporation ("PAS") at 3 (Jan. 27, 2003).

US-based international services providers."[7] Boeing notes that at best, the outcome would be a significant increase in service costs for end users, and "at worst, no provider could afford to build and operate an international satellite communications system." *Id.*

In contrast to the overwhelming evidence of the dire consequences for the satellite industry that would flow from spectrum auctions, the record here provides no evidence of any advantage to be gained from altering the current law. SES AMERICOM accordingly urges the Commission not to seek a change in the statutory prohibition on satellite spectrum auctions.

INTERFERENCE TEMPERATURE

SES AMERICOM also shares the concerns expressed by satellite service providers and other wireless operators regarding the Task Force's proposals related to the "interference temperature."[8] Although the concept of the interference temperature may prove useful in certain frequency bands, it

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[7] Comments of the Boeing Company at 6 (Jan. 27, 2003).

[8] *See, e.g.*, SIA Comments at 13-17; Comments of Hughes Network Systems, Inc. ("HNS") at 3-8 (Jan. 27, 2003); Lockheed Martin Comments at 6-9; Boeing Comments at 7-8; PAS Comments at 4.

See also Comments of the Telecommunications Industry Association at 8-9 (Jan. 27, 2003); Comments of Comsearch at 3 (Jan. 27, 2003); Comments of AT&T Wireless Services, Inc. at 8-14 (Jan. 27, 2003); Comments of Cingular Wireless LLC ("Cingular") at 17-38 (Jan. 27, 2003); Comments of Arch Wireless Operating Company, Inc. ("Arch Wireless") at 2-4 (Jan. 27, 2003); Comments of Motorola, Inc. at 12-14 (Jan. 27, 2003); Comments of Sprint Corporation at 14-16 (Jan. 27, 2003); Comments of BellSouth Corporation at 8-12 (Jan. 27, 2003); Comments of Wireless Communications Association International, Inc. at 9-12 (Jan. 27, 2003); Comments of Nokia Inc. at 4-5 (Jan. 27, 2003).

does not provide a satisfactory technical basis for permitting deployment of new services in satellite spectrum or adjacent bands.

The comments identify several problems with the use of an interference temperature approach. Hughes Network Services explains that satellite service providers have made significant investments to maximize the efficiency of their spectrum use. HNS Comments at 3-4. The resulting improvements in equipment performance, however, also make satellite services more susceptible to harmful interference. SIA Comments at 11.[9] As a result, any increase in the noise floor that users must tolerate in satellite spectrum would risk compromising service availability and quality.[10]

SIA also observes that Section 301 of the Communications Act prohibits the Commission from authorizing unlicensed operations that cause interference to licensed systems.[11] In addition, several parties express concern about how the Commission could detect and address violations if operations are permitted under the interference temperature approach.[12] This is of particular concern to the satellite industry, which has experienced

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[9] The same tension exists in other wireless services. For example, Cingular points out that the improvements in terrestrial wireless system performance make signals more sensitive to interference. Cingular Comments at 23.

[10] HNS Comments at 4. *See also* Lockheed Martin Comments at 8; PAS Comments at 4.

[11] SIA Comments at 14-16. *See also* Cingular Comments at 18-19.

[12] Lockheed Martin Comments at 7; Cingular Comments at 24-25; Arch Wireless Comments at 4.

significant interference as a result of unlicensed radar detectors in the Ku-band.[13]

Thus, although further study of the noise and interference environment may be valuable,[14] the record here demonstrates significant and perhaps insurmountable obstacles to reliance on an interference temperature to permit new services in satellite spectrum and adjacent bands.

INCREASING POWER IN RURAL AREAS

Finally, SES AMERICOM opposes permitting terrestrial services to employ increased power in rural areas in spectrum that is shared with satellite services or adjacent to satellite bands because increased terrestrial power could compromise satellite services. In a speech this week to satellite industry members, Senator Conrad Burns highlighted the importance of satellite services in rural communities:

> In states like Montana, with so many rural areas, satellite technology is crucial to allowing people to communicate. These people would otherwise be shut out from everyday life if it weren't for the services provided by the satellite industry.[15]

The comments here and SES AMERICOM's own experience confirm the Senator's assessment. HNS explains that satellite services are particularly well suited to satisfying demand for communications capacity in

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[13] *See* SIA Comments at 13-14; HNS Comments at 7; AT&T Wireless Comments at 12 & n.39.

[14] *See* AT&T Wireless Comments at 2.

[15] Remarks of Senator Conrad Burns before the Satellite Industry Association and Satellite Broadcasting and Communications Association, Feb. 25, 2003.

rural areas because of satellites' extensive geographic coverage and the distance insensitivity of their cost structure. HNS Comments at 9. SES AMERICOM has a long history of providing satellite capacity that is used by Alascom to provide critical communications systems to Alaska, including many extremely remote Alaskan "bush" villages that depend on satellite services.

Any change in the rules to permit terrestrial systems to use increased power in satellite bands would create an increased risk of harmful interference to rural customers that rely on satellite services. Furthermore, as SIA and HNS point out, there are practical difficulties with such a proposal, including the basic question of how to define and identify a rural area and how to reflect changes in population density over time. SIA Comments at 19-20; HNS Comments at 9-10. The few commenters expressing support for special regulatory treatment of rural areas provide no solutions for these problems.[16]

Because increased interference to satellite services would harm rural customers who rely on satellite communications, SES AMERICOM urges the Commission to exclude satellite spectrum and adjacent bands if it pursues proposals for permitting increased terrestrial power in rural areas.

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[16] *See, e.g.*, Comments of the Rural Commenters at 10 (Jan. 27, 2003) (expressing support for the idea of special treatment of rural areas while recognizing implementation problems); Comments of Microsoft Corporation at 5-6 (Jan. 27, 2003); Comments of The Rural Telecommunications Group at 12 (Jan. 27, 2003).

CONCLUSION

SES AMERICOM supports the Commission's efforts to explore new approaches to spectrum management. However, for the reasons set forth herein we oppose any change to the ORBIT Act's prohibition on auctions of satellite spectrum. In addition, in satellite spectrum and adjacent bands the Commission should not use an interference temperature approach to permitting unlicensed operations or consider permitting increased terrestrial power in rural areas.

Respectfully submitted,

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